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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EAMON J WALL
THOMASON MOSER & PATTERSON LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

HUYNH, SON P

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/359,561

Applicant(s)

LUDVIG ET AL.

Examiner

Son P Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-26, drawn to a method of producing and encoding video frame sequence for user interface, classified in class 725, subclass 41.
 - II. Claims 27-29, drawn to a method of encoding a plurality of program guide pages, classified in class 725, subclass 61.
2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as encoding video frame for subsequent transmission over the Internet. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with attorney AEMON J. WALL on 7/8/02 a provisional election was made with traverse to prosecute the invention of I, claims 1-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 27-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

5. Claims 22-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 merely recites a "bitstream" (which is just a sequence ones and zeros), which comprises a "compressed video signal". This claim is merely a disembodied signal and is analyzed as descriptive matter, per se.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1- 6, 8-10, 14-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Terasawa et al. (US 6,147,714).

Regarding claim 1, Terasawa et al. discloses a method of producing an encoded user interface comprising:

producing a video frame sequence representing an interactive program guide;
and encoding the video frame sequence within a headend of an information distribution system (see figure 1).

Regarding claim 2, Terasawa et al. discloses the producing step comprises a step of combining, in a frame synchronized manner, background imagery with at least one video sequence and at least one graphic containing program guide information to form the video frame sequence (see figures 1-2, 8).

Regarding claim 3, Terasawa et al. discloses the step of encoding the composited frame sequence to compress information therein to form a digital bitstream (see figure 1).

Regarding claim 4, Terasawa et al. discloses compositing, frame by frame, one video sequence onto the background imagery to form a background sequence; and compositing a plurality of program guide graphics onto the background sequence, where a different program guide graphic is composited onto the background sequence to form a plurality of program guide frame sequences that represent individual program guide pages (see figures 1-2, 8).

Regarding claim 5, Terasawa et al. discloses separately encoding each of the program guide frame sequences to form a digital bitstream for each of the program guide frame sequences (see figure 1).

Regarding claim 6, Terasawa et al. discloses multiplexing each of the digital bitstreams into a common transport stream (see figure 1).

Regarding claim 8, Terasawa et al. discloses encoding an audio signal associated with one of the video sequences; and multiplexing the encoded audio signal into the common transport stream (see figure 1).

Regarding claim 9, Terasawa et al. discloses the video frame sequence is a television program (see figure 1).

Regarding claim 10, Terasawa et al. discloses the video frame sequences comprise different categories (see figure 37). Inherently, the video frame sequence comprises an advertising program.

Regarding claim 14, Terasawa et al. discloses multiplexing foreground program guide data into the common transport stream (see figures 1 and 8).

Regarding claim 15, Terasawa et al. discloses a "compositor" for producing a frame sequence representing an interactive program guide; an encoder, coupled to the "compositor" and located within a head end of an information distribution system, for encoding the frame sequences to form a bitstream (see figure 1).

Regarding claim 16, Terasawa et al. discloses the compositor produces a plurality of frame sequences and the encoder comprises a plurality of encoders for encoding each frame sequence in the plurality of frame sequences to form a plurality of bitstreams (see figure 1).

Regarding claim 17, Terasawa et al. discloses a multiplexer for multiplexing the plurality of bitstreams into a transport stream (see figure 1).

Regarding claim 18, Terasawa et al. discloses transport stream has a unique code (see figures 14, 19). Inherently, the multiplexer assigns a different identification code to each bitstream.

Regarding claim 19, Terasawa et al. discloses program graphics generator for producing the program guide graphics and foreground overlay graphics, where the foreground overlay graphics are included into the transport stream as user data (see figure 1).

Regarding claim 20, Terasawa et al. discloses program graphics generator for producing the program guide graphics and foreground overlay graphics, where the foreground overlay graphics are included into the transport stream as private data (see col. 10, lines 32-58).

Regarding claim 21, Terasawa et al. discloses the encoder is an MPEG encoder (see figure 1).

Regarding claim 22, Terasawa et al. discloses a bitstream comprising a compressed video signal representing one or more program guide pages (see figure 1).

Regarding claim 23, Terasawa et al. discloses the compressed video signal is produced using an MPEG2 encoder (figure 1 and col. 5, lines 20-29).

Regarding claim 24, Terasawa et al. discloses the compressed video signal forms a portion of a transport stream (figure 1).

Regarding claim 25, Terasawa et al. discloses the compressed video signal is arranged in packets of data (see col. 10, lines 32-58).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al. (US 6,147,714) as applied to claim 6 above.

Regarding claim 7, Terasawa et al. discloses a method as discussed in the rejection of claim 6. However, Terasawa et al. fails to disclose fifteen program guide sequences are formed, encoded, and contained in a common transport stream. It is obvious to one of ordinary skill in the art to have a certain numbers of program guide

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sequences encoded in a common transport stream in order to achieve design technology.

10. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al. (US 6,147,714) in view of Civanlar et al. (US 5,623,308).

Regarding claim 26, Terasawa et al. discloses a method as discussed in the rejection of claim 1. Terasawa et al. further discloses transmitting programs in different motions (see col. 14, lines 53-65). However, Terasawa et al. fails to disclose the video frame sequence is encoded using slice based encoding.

Civanlar et al. discloses encoding video frame sequence using slice based encoding (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terasawa et al. with a method of slice based encoding as taught by Civanlar et al. in order to increase efficiency of the system.

Regarding claim 12, Civanlar et al. discloses slice based encoding encodes different regions in a different manner than the encoding that is performed upon other portions of the video frame sequence (see figures 3 and 5).

Regarding claim 13, Civanlar et al. discloses each region is assigned a unique program identifier (see figures 3 and 5).

11. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al. (US 6,147,714) in view of Chen et al. (US 5,917,830).

Regarding claim 26, Terasawa et al. discloses a bitstream as discussed in the rejection of claim 25. However, Terasawa et al. fails to disclose the bitstream comprising null packets of data.

Chen et al. discloses a bitstream comprising null packets of data (see figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terasawa et al. by providing null packets of data in bitstream in order to insert associated data onto stream.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Imanaka (US 5,790,172) discloses server apparatus, subscriber apparatus and information demand system.

Chimoto et al. (US 5,838,383) discloses system for encoding the digital signals, transmitting through network transmission to receiver and displaying on the display.

Eyer et al. (US 6,160,545) discloses multi-regional interactive program guide for television.

Coleman et al. (US 5,844,620) discloses method and apparatus for displaying an interactive television program guide.

Arazi et al. (US 5,966,120) discloses method and apparatus for combining and distribution data with pre-formatted real time video.

Kikuchi et al. (US 5,719,646) discloses method and apparatus for decoding coded moving picture and outputting it with suppressed error.

Schein et al. (US 6,002,394) discloses system and method for linking television viewers with advertisers and broadcaster.


Knee et al. (US 6,014,184) discloses electronic television program guide schedule system and method with data feed access.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Son P. Huynh
July 11, 2002


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600